

CLAIMS:

1. A method of scale factor retrieval in a system (10) for processing image or video programme content, characterized in that the method including steps of:
 - (a) receiving the programme content including watermark information embedded therein;
 - 5 (b) subjecting the programme content to spatial correlation processes to determine a plurality of correlation peaks for one or more image or video frame axes and deriving therefrom a plurality of scale factor candidates;
 - (c) analysing one or more combinations of scale factor candidates to determine a combination at which at least one of correlation is improved and watermark
10 retrieval accuracy is enhanced and thereby determining a best group of scale factor candidates.
2. A method according to Claim 1, wherein the method includes a further step of applying Hanning window selecting means to frames of the programme content to isolate
15 sub-regions of the frames for use in performing the spatial correlation processes in step (b).
3. A method according to Claim 2, wherein relatively more sub-regions are used for determining a best scale factor in a substantially vertical axis of frames in comparison to a number of sub-regions used for determining a best scale factor in a substantially horizontal
20 axis of the frames.
4. A method according to Claim 2, wherein one or more of the sub-regions used for determining the best scale factor in the substantially vertical direction are mutually overlapping, whereas the sub-regions used for determining the scale factor in the
25 substantially horizontal direction are substantially non-overlapping.
5. A method according to Claim 1, wherein, in step (b), correlation is performed in a transform domain relative to the programme content received in step (a).

6. A method according to Claim 5, wherein the transform domain is a Fourier transform domain.
7. A method according to Claim 1, wherein, in step (b), correlation is performed
5 in a sub-region point-wise multiplication using transform conjugate arrays corresponding to one or more sub-regions of the received programme content.
8. A method according to Claim 1, wherein correlation results from step (b) are subject to normalization prior to determine of scale factor candidates.
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9. A method according to Claim 2, wherein the sub-regions selected by the window selecting means form a group lying substantially towards a central region of each frame.
10. A method according to Claim 1, wherein the analysis in step (c) is subject to one or more searches in a range around the group of best scale factor candidates to iterate the best scale factor candidates to provide for optimal watermark retrieval.
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11. A method according to Claim 1 adapted for use in watermark retrieval.
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12. A method according to Claim 11, wherein watermark retrieval achieved using the method is for programme content authentication purposes.
13. Apparatus arranged to execute a method according to Claim 1.
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14. Software executable on one or more computing devices for implementing a method according to Claim 1.